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Education is the key to preventing growing inequalities in smoking prevalence

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Education is the key to preventing growing inequalities in smoking prevalence

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Education is the key to preventing growing inequalities in smoking prevalence

Summary

Widening educational disparities in smoking initiation may be a result of tobacco control policies which fail to influence those most at risk. Education itself may be a method of equipping adolescents with the skills required to abstain from tobacco.

Commentary

There have been great advancements in tobacco control policies over the past 20 years, many of which have targeted adolescents. In the Netherlands, major changes were introduced in 2003, including tobacco advertising bans, mass media campaigns and a ban on sales to minors. As a result, Nuyts and colleagues [1] hypothesised that there would be an upward shift in the age of smoking initiation over time in the Netherlands. They examined this using data from a national representative survey asking Dutch adults the age at which they initiated smoking. Respondents were grouped into cohorts based on their year of birth.

The hypothesised upward shift was not found. Instead, they observed a drop in absolute initiation rate. Those in the younger cohort (born 1988-1991) were less likely to start smoking at all, compared to those in the older cohort (born 1980-1983) – see Figure 4 in Nuyts et al [1].

Importantly, this shift was socially pattered – it was only observed among those who completed college and/or University study. Those who received a lower level of education not only had a higher level of smoking initiation, but they were

equally likely to initiate smoking across each of the age cohorts, showing no reduction in prevalence across the cohorts. In the earliest cohort, 16-year olds (the peak age for smoking initiation) who received a lower level of education were 1.4 times more likely to initiate smoking than those who received a higher level of education. For those born in the latest cohort, this had increased to 2.1 times more likely.

Nuyts and colleagues [1] conclude that their data 'suggest that recent tobacco prevention measures have been successful in preventing smoking uptake among young adolescents'. This is only partly true: for those most likely to start smoking, efforts in tobacco control appear to have done little to reduce smoking prevalence and have potentially served to widen health inequalities. This is supported by previous research from the same researchers which suggests that the 2003 measures were associated with widening educational inequalities in adolescent smoking [6]. This pattern has been observed observationally across a range of different cohorts, age groups and countries [2-5] and represents a vast disparity between those at the two ends of the socioeconomic spectrum.

There is evidence that the effectiveness of tobacco control strategies is socioeconomically patterned [7]. Smoking cessation services and educational media campaigns, such as those introduced in the Netherlands in 2003, appear to be more effective among those from higher socioeconomic groups [7]. In contrast, individuals from lower socioeconomic groups are more sensitive to price changes [8] and there is strong evidence that tobacco price increases have a pro-equity effect [7]. The Netherlands has a relatively poor track record for tobacco price policies [9-12];

meaningful tax increases were not introduced until 2008, by which point most individuals in these analyses had already initiated smoking.

We suggest that education itself may be important in equipping young people with the social and intellectual skills required to heed tobacco control educational campaigns and ultimately abstain from tobacco. Our recent Mendelian Randomization analysis found evidence that lower educational attainment may be causally related to increased rate of smoking initiation, increased heaviness of smoking and reduced likelihood of smoking cessation [13]. This is supported by another recent natural experiment, which showed that when school leaving age was raised in the UK, there was a corresponding reduction of various health risks such as diabetes and stroke [14].

If education improves health and reduces smoking behaviour, interventions that encourage teens to stay in education could help curb smoking initiation rates among those most at risk from starting.

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